## **Risk Factors for Identified Hazards**

| Use the list of risk factors below to analyze each hazard identified. |  |  |  |  |  |
|---|--|--|--|--|--|
| Frequency of occurrence   | How often does this hazard occur?  |  |  |  |  |
| Magnitude and potential intensity                                     | How bad could this hazard get?   |  |  |  |  |
| Location  | Are some areas of the jurisdiction more likely to be<br>affected by this hazard than others?     |  |  |  |  |
| Probable spatial extent   | How much of the jurisdiction is likely to be affected?   |  |  |  |  |
| Probable duration   | How long is the hazard likely to pose a threat?  |  |  |  |  |
| Seasonal pattern  | Is the hazard more likely to occur during certain<br>months of the year?                         |  |  |  |  |
| Speed of onset and availability of warning                            | How fast would an incident involving this hazard<br>threaten lives and property?                 |  |  |  |  |
|   | If the hazard does not threaten lives and property,<br>what degree of disruption could it cause? |  |  |  |  |
|   | Is there a way to warn against this hazard?  |  |  |  |  |

### **Frequency Distributions**

Assign a **frequency distribution** for each type of hazard identified in the Rating Worksheet. A frequency distribution categorizes the jurisdiction's *exposure* to each hazard (i.e., the likelihood of occurrence for each type of hazard). Exposure can be assessed in terms of cycles, hours, or years. The definitions of frequency distribution are shown in the table below.

| Exposure          | Frequency  |       |       |  |  |
|-------------------|--|-------|-------|--|--|
| Highly likely = 3 | The potential for impact is very probable (near 100 percent) in the next year.   |       |       |  |  |
| Likely = 2        | The potential for impact is between 10 and 100 percent within the next year.  or |       |       |  |  |
|                   |  |       |       |  |  |
|                   | There is at least one chance of occurrence within the next 10 years.             |       |       |  |  |
| Possible = 1      | The potential for impact is between 1 and 10 percent within the next year.       |       |       |  |  |
|                   | or   |       |       |  |  |
|                   | There is at least one chance of occurrence within the next 100 years.            |       |       |  |  |
| Unlikely = 0      | The potential for impact is less than 1 percent in the next 100 years.           |       |       |  |  |
| Severity Ratings  |  | Print | Close |  |  |

Use historical and analytical data to assign a **severity rating** to each type of hazard that the team identifies in the Hazard Rating Worksheet. The severity ratings selected should quantify, to the degree possible, the damage to be expected in the jurisdiction as a result of a specific hazard. The definitions of the severity ratings are shown in the table below.

| Population/<br>Property Level of<br>Severity | Definition  |  |  |  |
|--|---|--|--|--|
| Catastrophic = 3                             | <ul> <li>Multiple deaths</li> </ul>   |  |  |  |
|  | <ul> <li>Complete shutdown of critical facilities for 30 days or more</li> </ul>      |  |  |  |
|  | <ul> <li>More than 50 percent of property is severely damaged</li> </ul>              |  |  |  |
| Critical = 2                                 | <ul> <li>Injuries and/or illnesses result in permanent disability</li> </ul>          |  |  |  |
|  | <ul> <li>Complete shutdown of critical facilities for at least 2 weeks</li> </ul>     |  |  |  |
|  | <ul> <li>More than 25 percent of property is severely damaged</li> </ul>              |  |  |  |
| Limited = 1                                  | <ul> <li>Injuries and/or illnesses do not result in permanent disability</li> </ul>   |  |  |  |
|  | <ul> <li>Complete shutdown of critical facilities for more than 1 week</li> </ul>     |  |  |  |
|  | <ul> <li>More than 10 percent of property is severely damaged</li> </ul>              |  |  |  |
| Negligible = 0                               | <ul> <li>Injuries and/or illnesses are treatable with first aid</li> </ul>            |  |  |  |
|  | Minor quality of life lost  |  |  |  |
|  | <ul> <li>Shutdown of critical facilities and services for 24 hours or less</li> </ul> |  |  |  |
|  | <ul> <li>No more than 1 percent of property is severely damaged</li> </ul>            |  |  |  |

### **Hazard Profile Worksheet**

Use the information from the Hazard Ranking Worksheet to complete this worksheet for each hazard.

#### Hazard:

#### **Potential Magnitude:**

- Catastrophic: Can affect more than 50 percent of the jurisdiction.
- Critical: Can affect between 25 and 50 percent of the jurisdiction.
- Limited: Can affect between 10 and 25 percent of the jurisdiction.
- Negligible: Can affect less than 10 percent of the jurisdiction.

#### **Probable Duration:**

### **Potential Speed of Onset:**

- More than 24 hours warning probably will be available.
- Between 12 and 24 hours warning probably will be available.
- Between 6 and 12 hours warning will be available.
- Minimal (or no) warning will be available.

#### **Existing Warning Systems:**

Complete Vulnerability Analysis with local/State emergency management agencies? (Note that some hazards may pose such a limited threat to the jurisdiction that additional analysis is not necessary.)

Yes/No

# Ranking the Hazards

| Hazard | Frequency<br>(Likelihood) | Potential<br>Impact on<br>Population | Potential<br>Impact on<br>Property | Level of Coverage<br>in EOP  | Point<br>Total |
|--------|---------------------------|--------------------------------------|------------------------------------|------------------------------|----------------|
|        | 0 = Unlikely              | 0 = Negligible                       | 0 = Negligible                     | 0 = None                     |                |
|        | 1 = Possible              | 1 = Limited                          | 1 = Limited                        | 1 = Limited                  |                |
|        | 2 = Likely                | 2 = Critical                         | 2 = Critical                       | 2 = Sufficient               |                |
|        | 3 = Highly<br>Likely      | 3 = Catastrophic                     | 3 = Catastrophic                   | 3 = Comprehensive<br>(annex) |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |
|        | 0 1 2 3                   | 0 1 2 3                              | 0 1 2 3                            | 0 1 2 3                      |                |